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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,836	08/06/2001	Charles J. Brine	835-013.011-	9786

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EXAMINER

HAILEY, PATRICIA L

ART UNIT PAPER NUMBER

1755

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/831,836	BRINE ET AL.	
	Examiner	Art Unit	
	Patricia L. Hailey	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 9-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicants' remarks and amendments, filed on March 10, 2004, have been carefully considered. No claims have been canceled or added; claims 1-25 remain pending in this application.

Claims 4-8 have been amended to ensure proper multiple claim dependency; the objection to these claims stated in the previous Office Action has been withdrawn.

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-8, in Paper No. 8, is acknowledged. The traversal is on the ground(s) that "the prior art does not show the central feature of the invention, which is common to and links all claims, namely the description of a shear thickening pregelatinized starch". This is not found persuasive because the claims in their present form are not directed to a "shear thickening pregelatinized starch". Further, Applicants have not presented any convincing arguments that the Examiner's restriction requirement is in error, namely that the inventions of Groups I-IV are not independent and distinct, each from each other. The Examiner maintains the position that each invention, Groups I through IV, are independent and distinct within themselves, and each have independent and distinct functions or operations.

The requirement is still deemed proper and is therefore made FINAL.

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2. Claims 9-25 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected starch product (claims 9-15, 18-22, and 25), to a nonelected foodstuff (claims 16 and 23), and to a nonelected cosmetic and/or personal care product (claims 17 and 24), there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

Claims 1-8 remain under consideration by the Examiner.

New Ground(s) of Rejection

The following New Ground(s) of Rejection is(are) being made in view of Applicants' amendments to claims 4-8. As these claims were previously objected to for being in improper multiple dependent form, these claims are now further treated on the merits (see paragraph 11 in the previous Office Action).

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Papadopoulos et al. (U. S. Patent No. 6,617,446).

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Papadopoulos et al. teach cold water swellable (CWS) starches prepared by methods known in the art, see col. 1, lines 46-50 of Papadopoulos et al.

Starch sources for preparing the CWS starches include potato and tapioca (see col. 2, lines 4-8 of Papadopoulos et al.), as well as starches that have been crosslinked, acetylated, hydroxypropylated, phosphorylated, and succinate and substituted succinate derivatives of starch. See col. 2, lines 19-29 of Papadopoulos et al., as well as col. 3, lines 15-22, which discloses additional suitable starches, such as those stabilized with propylene oxide and crosslinked with phosphorus oxychloride.

The CWS starch may also be pregelatinized. See col. 2, lines 43-48 of Papadopoulos et al. Such pregelatinization may be done by simultaneous cooking and spray drying, such as described in U. S. Patent No. 5,149,799 (incorporated by reference, see col. 3, lines 1-5 of Papadopoulos et al.). The '799 patent discloses cooking and spray drying conditions of temperature and vapor pressure (moisture) to result in cooking or gelatinization of the starch, to produce a cold-water-swelling, pregelatinized starch having a minimum of granule breakage or heat damage (col. 6, line 4 to col. 7, line 60).

The CWS starches of Papadopoulos et al. exhibit an increase in viscosity throughout mixing and holding periods. See Examples 2-5 of Papadopoulos et al.

In view of these teachings, Papadopoulos et al. anticipate claims 1-8.

Response to Arguments

Applicants argue that the claimed invention is “different chemically, physically and functionally from those of the reference.” Applicants have not provided any concrete evidence supporting this argument. The cited reference teaches the limitations of the claims in their present form, namely the claimed process for preparing a pregelatinized CWS starch, wherein a crosslinked, stabilized starch is heated under conditions of time, temperature, and moisture effective to disrupt less than 50% of intact starch granules in said starch and effective to provide the condition that, when a slurry of said starch is subjected to high shear, the viscosity increases toward a maximum, and retain that viscosity throughout further low shear mixing and holding periods.

Applicants argue that the claimed invention “relates to to (sic) shear thickening pregelatinized starch”. Applicants’ claims in their present form make no reference to a “shear thickening...starch”, just to a “pregelatinized, cold water swelling starch” (claim 1).

The Examiner maintains that the Papadopoulos et al. reference’s teaching that Patentees’ starches “exhibit an increase in viscosity throughout holding and mixing periods” reads on the claim limitation that the starch will “retain that viscosity throughout further low shear mixing and holding periods”, absent the showing of convincing evidence to the contrary. Further, Applicants’ claim language that “the viscosity will increase toward a maximum, and retain that

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viscosity throughout further low shear mixing and holding periods” does not clearly indicate that the “retained” viscosity is the *maximum viscosity*; rather, this language implies that the viscosity will not decrease to a value lower than its original value, but will remain at a value between its original value and the maximum viscosity. Thus, the “slight decreases” noted in the Examples of Papadopoulos et al. are considered to read upon this limitation.

With respect to Applicants’ arguments that Papadopoulos et al. “do not distinguish between degrees of cross-linking or types of starch, whereas applicants have determined that both play a significant role in meeting their stated objective and claimed criteria of effectiveness”, the Examiner notes that Applicants’ claims in their present form do not recite any degree of cross-linking, either, and that the types of starch recited in the instant claims are also disclosed by Papadopoulos et al.

In response to Applicants’ arguments that they “have made a significant improvement in starch technology by providing one that is shear thickening”, and that the starches of Papadopoulos et al. are not shear thickening, the Examiner points out that Applicants do not claim a shear thickening starch. Further, Applicants’ have not provided any concrete, convincing evidence that the process disclosed by Papadopoulos et al., as well as the starches produced by Patentees’ process, is substantially inferior to Applicants’ claimed process.

For these reasons, Applicants’ arguments are not persuasive.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

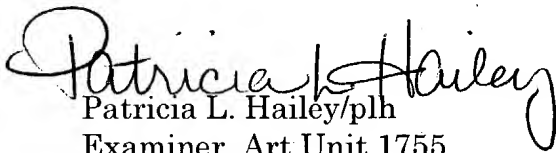
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patricia L. Hailey/plh
Examiner, Art Unit 1755
April 12, 2004



Mark L. Bell
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